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10/734,979 **Application Number** 12/10/2003 Filing Date First Named Inventor Campbell et al. Art Unit 1762 **Examiner Name** Turocy Attorney Docket Number 0906S-000339 (IN-5567)

ENCLOSURES (check all that apply)							
Fee Transmittal F	Form	☐ Drawing(s)			After Allowance Communication to Technology Center (TC)		
Fee Attached	I	Licensing-related Papers			Appeal Communication to Board of Appeals and Interferences		
Amendment / Rep	oly	Petition			Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)		
After Final			Convert to a Application	Proprietary Information			
Affidavits/dec	laration(s)		ttorney, Revocation Correspondence Address	Status Letter			
Extension of Time	e Request	Terminal Disclaimer			Other Enclosure(s) (please identify below):		
Express Abandon	nment Request	☐ Request for Refund ☐ CD, Number of CD(s)			Appeal Brief (in triplicate) and Return Postcard		
☐ Information Disclosure Statement							
Certified Copy of Priority Document(s)		Remarks The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 23-3425. A duplicate copy of this sheet is enclosed.					
Response to Missing Parts/ Incomplete Application			A000UIII 110. 20-0420.	A duplic	nate copy of this sheet is enclosed.		
Response to Missing Parts under 37 CFR 1.52 or 1.53							
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT							
Firm or Individual name	Harness, Dickey & Pierce, P.L.C.		Attorney Name Anna M. Budde		Reg. No. 35,085		
Signature	anna m Buddle						
Date	February 27, 2006						

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Signature	Juna M Budde	Date	February 27, 2006

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	Effective 2/8/2006. Patent fees are subject to annual revision.	Examiner Name	1762				
	Applicant claims small entity status. See 37 CFR 1.27	Art Unit	Turocy	_			
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

10/734,979

Filing Date:

December 10, 2003

Applicant:

Donald H. Campbell and David R. Hay

Group Art Unit:

1762

Examiner:

David F. Turocy

Title:

BLOCKED ISOCYANATES FOR CLEARCOATS

WITHOUT USAGE RESTRICTIONS

Attorney Docket:

IN-5567

Harness, Dickey & Pierce Docket No. 906-339

Director of the United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

Appeal Brief Under 37 C.F.R. § 41.37

Sir:

This is an appeal from the Office Action mailed September 30, 2005,

finally rejecting all pending claims. A Notice of Appeal was mailed on December 27,

2005 appealing all of the rejected claims. This Appeal Brief is due on February 27, 2005.

This Brief is accompanied by the fee under 37 C.F.R. § 41.20(b)(2).

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Real Party in Interest

The real party in interest is BASF Corporation, a corporation of the state of Delaware, to which the inventors assigned all rights in this invention. The assignment was recorded by the USPTO on March 26 at reel 014465, frame 0973.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of Claims

All of the pending claims, claims 1-14, stand finally rejected. This appeal is taken as to all of the pending claims.

Status of Amendments

The amendment filed after the final rejection was entered.

Summary of Claimed Subject Matter

Independent claim 1 is to a method of coating a substrate to maximize capture from wastewater of a compound of Formula I, wherein each R is independently selected from the group consisting of alkyl, cycloalkyl, aryl, and akylaryl groups and wherein the R groups have, on average, five or more carbon atoms, with the proviso that the compound is a solid when the R groups have, on average, fewer than six carbon atoms. Page 3, paragraphs [0006] and [0007].

A thermoset composition comprises a compound of Formula I, an oligomer thereof, or both is sprayed onto a substrate in a spray booth. Page 3, lines 1-2 (paragraph [0005]). Overspray of the thermoset composition results from the spraying and is captured with a spray booth water wash. The spray booth water wash is removed and the compound or oligomer of Formula I is removed from the water wash so that the overspray waste can be safely discharged to sewers. Page 3, lines 2-4 (paragraph [0005]), page 4, lines 2-4 (end of paragraph [0008]), page 14, paragraph [0032]. pages 14-16, Example 2, paragraphs [0033]-[0034].

While blocked isocyanate crosslinkers based on melamine triisocyanate are disclosed in Jacobs III, et al., the EPA has restricted the only such compound commercially available, the

methanol/butanol-blocked compound, because of its unacceptable aquatic toxicity, especially toward fish. Page 1, lines 1-7 of paragraph [0003]. Thus, it could not be used in automotive coatings, which are applied by spraying, because the overspray is trapped in spraybooth washwater, which could then not be safely disposed of. Page 1, lines 7-11 of paragraph [0003].

The present invention overcomes this problem. Example 2 explains the results of toxicity modeling for the blocked isocyanate of Applicants' invention.

Claim 4 is separately patentable. In claim 4, at least one R comprises an oxygen atom. Page 2, second line from bottom (paragraph [0005]). For example, the R comprises an oxygen when the isocyanate group is blocked with an alkylene glycol monoalkyl ether (the ether oxygen then being part of the R group), Page 6, line 7 (in paragraph [0011]); Example 3 on pages 16-17.

Grounds of Rejection to Be Reviewed on Appeal

Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sadvary et al., U.S. Patent Application Publication 2001/0039324 A1, which incorporates Jacobs III et al., U.S. Patent 4,939,213 by reference.

Argument

Claims 1-14 are patentable over Sadvary et al., U.S. Patent Application Publication 2001/0039324 A1.

The Sadvary publication does not suggest Applicants' invention because Applicants' invention provides an unexpected advantage over the expansive group of curing agents from which the Sadvary publication asks the skilled artisan to select. A subgroup possessing a different feature or property may be patentable over a reference disclosing a broad genus that includes the subgroup to which the claims are directed when that reference does not disclose or suggest the selection of the claimed subgroup. In re Deuel, 34 U.S.P.Q.2d 1210 (Fed. Cir. 1995) ("a broad genus does not necessarily render obvious each compound within its scope"); In re Bell, 26 U.S.P.Q.2d 1529 (Fed. Cir. 1993) (claim to DNA and RNA molecules with certain human genes patentable over disclosure of amino acid sequences); In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992) (particular dicamba salt patentable over disclosure of genus of dicamba salts). Compare, In re Susi, 169 U.S.P.Q. 123 (C.C.P.A. 1971) (claimed stabilizer obvious from disclosure of genus of compounds, all useful as stabilizers, in combination with disclosure of specific stabilizer with nearly identical structure); Merck & Co. Inc. v. Biocraft Laboratories Inc., 10 U.S.P.Q.2d 1843 (Fed. Cir. 1989) (all compounds disclosed in the reference had the same efficacy as the claimed combination, thus there was a reasonable likelihood of success in choosing any compound).

In the present instance, as in *Devel* and *Bell*, there can be no expectation of success in random selection among the Jacobs curing agents. The Sadvary publication provides no direction at all on how to select those curing agents that will be acceptable in the present method from those that will not be useful because of toxicity to aquatic life. There is no appreciation of the problems of aquatic toxicity in the Sadvary publication (or the Jacobs patent) or any awareness

that not all of the curing agents within its general description will avoid this regulatory concern. Without this, there can be no reasonable expectation of success. There is, in fact, no motivation in the reference to carry out the claimed method.

As further evidence that Applicants' invention is patentable over the prior art, Applicants point out that the commercially available triisocyanto triazine (Jacobs III compound) did not have the property and advantage of Applicants' invention and, therefore, could not be used in compositions made for spray application.

Thus, with regard to all claims, the prior art did not provide the motivation or teaching needed for the person of ordinary skill in the art to arrive at the present invention.

Finally, with regard to claim 4, the Formula I compound prepared using an alcohol would not have an R group comprising an oxygen. The oxygen atom of an alcohol is the one shown as the linking oxygen atom, the "O" of the "OR." Thus claim 4 is patentable over the cited art for the additional reason that there is no suggestion to use a compound of Formula I in which the R group includes an oxygen atom.

Because the Sadvary publication does not suggest the subgroup of Applicants' invention, and because the Sadvary publication provides no reasonable expectation of success in solving the problem Applicants faced, Applicants submit that the rejection should be REVERSED.

Further in regard to claim 4, because the Sadvary publication in silent on compounds of Formula I in which an R group comprises an oxygen atom, Applicants submit that the rejection should be reversed in regard to claim 4 for this additional reason.

Conclusion

The present claims are patentable over the cited art. Applicants, therefore, respectfully petition this Honorable Board to reverse the final rejection of the claims on each ground and to indicate that all claims are allowable.

Respectfully submitted,

Anna M. Budde

Registration No. 35,085

February 27, 2006 Harness, Dickey & Pierce, P.L.C. P.O. Box 828 Bloomfield Hills, Michigan 48303 (248) 641-1600

Claim Appendix

Copy of the Claims Appealed

- 1. A method of coating a substrate to maximize capture of a compound of Formula I from wastewater, comprising steps of:
- (a) providing a thermosetting composition comprising a compound of Formula I

an oligomer thereof, or both, wherein each R is independently selected from the group consisting of alkyl, cycloalkyl, aryl, and akylaryl groups and wherein the R groups have, on average, five or more carbon atoms, with the proviso that the compound is a solid when the R groups have, on average, fewer than six carbon atoms;

- (b) spraying the thermosetting composition onto the substrate in a spray booth where overspray of the composition containing the compound of Formula I or the oligomer thereof or both results from the spraying,
 - (c) capturing the overspray with a spray booth water wash,
 - (d) removing spray booth water wash as waster water and

(e) waste water.	removing the compound of Formula I or the oligomer thereof or both from the
2. 3.	The method of claim 1, wherein each R has six to eighteen carbon atoms. The method of claim 1, wherein each R has six to eight carbon atoms,
4.	The method of claim 1, wherein at least one R comprises an oxygen atom.
5.	The method of claim 1, wherein the thermosetting composition comprises an oligomer
of compound	(1).
6.	The method of claim 5, wherein the oligomer is an isocyanurate.
7.	The method of claim 1, wherein each R is independently selected from the group
consisting of h	nexyl, 2-ethylhexyl, heptyl, and octyl groups.
8. composition.	The method of claim 1, wherein the thermosetting composition is a clearcoat coating
Serial No. 10	7/734,979 Page 8 of 13

9. The method of claim 1, wherein the thermosetting composition further comprises an isocyanate-reactive material. 10. The method of claim 1, wherein the thermosetting composition further comprises an hydroxyl-functional material. 11. The method of claim 10, wherein the hydroxyl-functional material is selected from the group consisting of acrylic polymers, polyurethane polymers and oligomers, polyester polymers and oligomers, and combinations thereof. 12. The method of claim 10, wherein the thermosetting composition further comprises at least one additional crosslinker selected from the group consisting of aminoplast resins and blocked isocyanate resin crosslinkers other than compound (i) and other than oligomers of compound (i). The method of claim 10, wherein the compound (I), oligomer thereof, or both is from 13. about 2% to about 40% by weight of the nonvolatile vehicle of the thermosetting composition. The method of claim 1, wherein the substrate is an automotive vehicle or part thereof. 14.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.